



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,976	01/16/2002	Derek J. Hei	282172000902	3174

38859 7590 09/08/2004

CERUS CORPORATION
C/O MORRISON & FOERSTER LLP
755 PAGEMILL ROAD
PALO ALTO, CA 94304

EXAMINER

NAFF, DAVID M

ART UNIT	PAPER NUMBER
1651	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,976

Applicant(s)

HEI ET AL.

Examiner

David M. Naff

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 27-59 is/are pending in the application.
- 4a) Of the above claim(s) 10-24 and 27-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 55-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/5/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for
5 continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/5/04 has been entered.

An amendment submitted with the submission amended claim 1, and
10 added new claims 55-59.

Claims in the application are 1-24 and 27-59.

Claims 10-24 and 27-54 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made
15 **without** traverse in the reply filed on 2/27/03.

Claims examined on the merits are 1-9 and 55-59.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

20 Claims 1-9 and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollowitz et al in view of Tsyurupa et al (193 on form 1449) and Davankov et al (110 on form 1449).

The claims are drawn to removing free psoralen and low molecular weight psoralen photoproducts from blood products by contacting a
25 blood product containing free psoralen and low molecular weight

Art Unit: 1651

psoralen photoproducts with a hypercrosslinked resin to remove the free psoralen and low molecular weight psoralen photoproducts. Claims 55-59 additionally require brominated psoralen, the resin to be nonionic and the free psoralen to comprise free psoralen and free low molecular weight psoralen photoproduct.

Wollowitz et al disclose adding psoralen compounds to inactivate pathogens in blood products, or blood products in synthetic media (col 1, line 17, and col 3, line 41) containing phosphate (col 5, line 29), irradiating and then removing free psoralen compounds from the blood with various adsorptive materials (col 53, lines 42-64) including Amberlite XAD-4 (col 53, line 50).

Tsyurupa et al and Davankov et al disclose using hypercrosslinked polystyrene-divinylbenzene copolymers for sorption and removal of a variety of organic compounds from aqueous mediums. The hypercrosslinked copolymers have exceptional high adsorption capacity. For example, see Tsyurupa et al (page 69, right col, lines 14-17, and page 70, left col, lines 6-10).

It would have been obvious to substitute for the Amberlite XAD-4 adsorbent resin of Wollowitz et al, the hypercrosslinked polystyrene-divinylbenzene copolymer taught by Tsyurupa et al and Davankov et al for the expected advantage of the hypercrosslinked copolymer providing exceptional adsorption capacity. Since both Amberlite XAD-4 and the hypercrosslinked copolymer are polystyrene-divinylbenzene copolymers and are essentially the same except for hypercrosslinking, it would have been expected that the hypercrosslinked copolymer would provide

Art Unit: 1651

the sorption function of Amberlite XAD-4 required by Wollowitz et al of removing free psoralen compounds from treated blood or synthetic blood media. The hypercrosslinked copolymer of Tsyurupa et al and Davankov et al is nonionic as in claims 56-58, and Wollowitz et al disclose a 4-bromomethyl-4,5',8-trimethylpsoralen (col 14, line 24), and a brominated psoralen as in claim 55 would have been obvious. The free psoralen compounds in the blood will inherently be a mixture as required by claim 59.

Response to Arguments

Applicants have present a 132 Declaration by Derek J. Hei stating that he is the sole inventor of the use of adsorptive materials disclosed at col 53, lines 43-63 of Wollowitz et al, and that the inventors of Wollowitz et al obtained knowledge of the use of adsorptive materials from Derek J. Hei. However, a mere statement of being a sole inventor of the subject matter as in the declaration is not enough. Evidence must be supplied in addition to the statement.

Applicants urge that Wollowitz et al is not a reference under 103(c) because of common assignment with the present application at the time of the present invention. However, this appears to relate to Mr. Cimino being a coinventor of one or more dependent claims. These dependent claims have not been pointed out.

Double Patenting

Claims 1-9 and 55-59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-47 of U.S. Patent No. 6,544,727 B1. Although the

Art Unit: 1651

conflicting claims are not identical, they are not patentably distinct from each other because the presently claimed invention would have been obvious from the claims of the patent drawn to a system containing an adsorbent material which can be a hypercrosslinked resin
5 for use to remove psoralen compounds from blood products.

Double Patenting

Claims 1-9 and 55-59 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 53-110 of copending Application No.
10 09/972,323 or claims 53-115 of copending Application No. 10/011,202 or claims 1-24 of copending Application No. 09/872,384. Although the conflicting claims are not identical, they are not patentably distinct from each other because the presently claimed invention would have been obvious from the claims of the copending applications drawn to
15 using an adsorbent material which can be a hypercrosslinked resin to remove psoralen compounds from blood products.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

20 Applicants state that double patenting rejections will be addressed at the appropriate time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff

Art Unit: 1651

whose telephone number is 571-272-0920. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David M. Naff
Primary Examiner
Art Unit 1651

DMN
9/3/04